

9/5/97

CALFED Water Transfer Element

Draft Discussion Paper No. 5 - Carriage Water

Issue/Question

How should carriage water requirements and/or the export/inflow ratio apply to transfers across the Delta?

Definition

Carriage water generally refers to the incremental amount of Delta outflow needed to prevent salinity intrusion or to maintain a controlling water quality standard, calculated as a percentage of the water transferred across the Delta or as a function of the export/inflow ratio of the May 1995 Water Quality Control Plan (WQCP).

Summary

Historically, water transferred across the Delta has been subject to a carriage water requirement, in some cases as much as 20% to 30% of the transferred quantity, imposed by the State Board at the direction of the SWP or CVP. More recently, the WQCP limits project exports to 35% or 65% of Delta inflow. It is generally agreed that transfers should be subject to the same ratio if the ratio is controlling in the Delta. In other circumstances, there may be some disagreement on how carriage water requirements should be calculated and when they should be applied.

Discussion

High carriage water requirements add significant cost to a transfer and in some cases make a transfer economically infeasible. On the other hand, low or no carriage water requirements may require the CVP/SWP to in effect subsidize a transfer, if outflow requirements or the inflow/export ratio are controlling.

Some stakeholders argue that under the current WQCP, carriage water requirements should not apply so long as the water quality standards and outflow objectives are being met without reservoir releases from the CVP and the SWP (i.e., when the Delta is in excess conditions) and the export/inflow ratio is not controlling.

In other words, so long as the outflow and water quality standards are being met and the transfer does not increase the burden of these obligations on the projects, the transfer water should "ride on top" of project water as it comes across the Delta.

Project operators take the position that transfers should be subject to carriage water requirements, but that these may vary depending on outflow conditions, pumping levels and residual effects in the Delta. If the Delta is in balanced conditions and the projects are making storage releases to meet outflow or water quality requirements, the project operators will want to assess carriage water requirements. If the export/inflow ratio is controlling, the project operators will want the transfer to be subject to the same export limitation. If there is surplus water in the Delta, it is unlikely that there will be capacity at the project pumps for transfer water, since the projects will be operating to maximize project water deliveries.

The foregoing discussion applies to transfers from the Sacramento or the San Joaquin system to the export service area. For transfer on the San Joaquin system, USBR and DWR have assessed a 5-10% conveyance surcharge on San Joaquin system transfers to account for losses from the point of release to Vernalis. Some stakeholders believe this requirement should be based on actual losses if these can be measured. Project operators do not necessarily disagree with this and point out the actual losses may in fact be much higher than 10%, but that it is difficult to measure such losses in a timely manner.

Options to resolve this issue

Develop rules and criteria for carriage water requirements based on conditions in the Delta and the actual quantities of water needed to maintain required salinity levels or outflows.

The State Board should have the authority to determine carriage water requirements for cross Delta transfers.